

What is claimed is:

1. A method for a gain control of a fiberoptic repeating system comprising:

mixing from a master repeater a modulated MODEM signal of a predetermined level with a RF signal and transmitting the mixed signal through an optical cable;

detecting at a slave repeater a modulated MODEM signal level from the mixed signal transmitted by the master repeater;

comparing the detected modulated MODEM signal level with a reference level and obtaining a difference between the levels; and

controlling a gain of an amplifier for the RF signal in the slave repeater based upon said obtained difference.

2. A method of claim 1, wherein the modulated MODEM signal is detected by a controller of the slave repeater.

3. A method of claim 1, wherein the reference level is the predetermined level unless the master repeater transmits a control signal of a base station.

4. A method of claim 1, wherein controlling the gain of the amplifier to increase a level of the RF signal by the obtained difference.

5. A method for a fiberoptic repeating system comprising:
transmitting from a base station a first RF signal;
amplifying the first RF signal by a constant level through
an amplifier of a master repeater;

5 mixing a first modulated MODEM signal of a predetermined
level with the first amplified RF signal and transmitting the
mixed signal through an optical cable to a slave repeater;

receiving and separating the mixed signal into a second
modulated MODEM signal and a second RF signal, and detecting a
modulated MODEM signal level from the second modulated MODEM
signal;

comparing the detected modulated MODEM signal level with a
reference level and obtaining a difference between the levels;

controlling a gain of an amplifier for the RF signal in the
slave repeater based upon said obtained difference; and

amplifying the second RF signal according to the controlled
gain and transmitting the second amplified RF signal to a
terminal.

20 6. A method of claim 5, wherein the modulated MODEM signal
level is detected by a controller of the slave repeater.

7. A method of claim 5, wherein the reference level is the
predetermined level unless the master repeater transmits a

control signal of a base station.

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5 8. A method of claim 5, wherein controlling the gain of the amplifier for the RF signal in the slave repeater to increase a level of the second RF signal by the obtained difference.

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